Notice No.2

Rules and Regulations for the Classification of Ships using Gases or other Low-flashpoint Fuels, July 2022

The status of this Rule set is amended as shown and is now to be read in conjunction with this and prior Notices. Any corrigenda included in the Notice are effective immediately.

Please note that corrigenda amends to paragraphs, Tables and Figures are not shown in their entirety.

Issue date: December 2022

Amendments to	**Effective date**	**IACS/IMO implementation (if applicable)**
Part A, LR 4.2	Corrigenda	N/A
Part A-1, Sections 5, 6, 7, 15 & LRA-1-03	Corrigenda	N/A
Part B-1, Section 16	Corrigendum	N/A
Appendix LR1, Part A-1	Corrigendum	N/A

Part A
4 General Requirements

4.2 Risk assessment

LR 4.2-01 The risk assessment is to be undertaken and documented in accordance with LR’s *ShipRight Procedure for ~~Risk Based Designs (RBD) and associated annexes~~ Risk Based Certification (RBC)*. Consideration of hazards is to include fuel and inert gas tanks, machinery and equipment, and the specific location of accommodation and cargo.

LR 4.2-02 To comply with 4.2.2 the risk assessment for ships to which part A-1 applies is to be undertaken and documented in accordance with LR’s *ShipRight Procedure for ~~Risk Based Designs (RBD) and associated annexes~~ Risk Based Certification (RBC)*.

Part A-1
Specific Requirements for Ships Using Natural Gas as Fuel

5 Ship Design and Arrangement

5.3 Regulations – General

~~LR 5.3-02 No part of the outer extent of fuel tanks is to be less than 800 mm inboard from the ship shell side or from the boundary of any adjacent space, except as otherwise allowed by 5.3.2.~~

6 Fuel Containment System

~~6.12~~ 6.1 Goal

~~6.12.1~~ The goal of this section is to provide for a fuel containment system where the risk to the ship, its crew and to the environment is minimized to a level that is at least equivalent to a conventional oil fuelled ship.

~~6.13~~ 6.2 Functional requirements

Existing paragraphs 6.13.7 to 6.13.10 have been renumbered 6.2.1 to 6.2.4.

~~6.14~~ 6.3 Provisions for fuel tanks venting and gas freeing system

Existing paragraphs 6.14.7 to 6.14.15 have been renumbered 6.3.1 to 6.3.9.

~~6.15~~ 6.4 Inerting and atmospheric control within the fuel storage system

Existing paragraphs 6.15.7 to 6.15.17 have been renumbered 6.4.1 to 6.4.11.

~~6.16~~ 6.5 Inert gas availability on board

Existing paragraphs 6.16.7 to 6.16.15 have been renumbered 6.5.1 to 6.5.9.

7 Material and General Pipe Design

7.4 Regulations for materials

7.4.1 Metallic materials

Table LR 7.1.1

Table LR 7.2

Notes

2. For material thickness of more than 25 mm, Charpy V-notch tests shall be conducted as follows:

Material thickness (mm)	Test temperature (ºC)
25 < t ≤ 30	10°C below design temperature or -20°C whichever is lower
30 < t ≤ 35	15°C below design temperature or -20°C whichever is lower
35 < t ≤ 40	20°C below design temperature
40 < t	Temperature approved by the Administration (*See* LR 1)

The impact energy value shall be in accordance with the table for the applicable type of test specimen. Materials for tanks and parts of tanks which are completely thermally stress relieved after welding may be tested at a temperature 5°C below design temperature or -20°C whichever is lower. For thermally stress relieved reinforcements and other fittings, the test temperature shall be the same as that required for the adjacent tank-shell thickness. (*See* **LR 1a**).

5. Materials with specified minimum yield stress exceeding 410 N/mm^2 may be approved by the Administration. For these materials, particular attention shall be given to the hardness of the welded and heat affected zones. ~~(*See***LR 1a**)~~

15 Control, Monitoring and Safety Systems

15.8 Regulations for gas detection

LR 15.8-01 In addition to the areas identified in 15.8.1, the following areas are also to be fitted with gas detection:
(a) any spaces requiring gas detection as identified as part of ~~RBD~~ RBC and the safety concept for gas-fuelled machinery;

15.11 Regulations on safety functions of fuel supply systems

LR 15.11-01 Any additional alarms and shutdowns determined on the basis of ~~RBD~~ RBC are to be provided as necessary.

LRA-1-03 Plans and information to be submitted

LR A-1-03a In addition to the plans and information required by the relevant Chapters of the *Rules and Regulations for the Classification of Ships*, the following are to be submitted for assignment of the **LFPF(GF, NG)** notation:
~~(x) A suitable testing and inspection plan for low-flashpoint fuel storage and supply systems trials.~~
(x) A suitable inspection and testing plan for fuel bunkering, storage and supply systems including trials and periodical surveys.

Part B-1

16 Manufacture, Workmanship and Testing

16.4 Other regulations for construction in metallic materials

16.4.2 Independent tank

LR 16.4-02 For Type C tanks of carbon and carbon-manganese steel with plate thickness up to 40 mm, post-weld heat treatment shall be performed after welding, if the design temperature is ~~equivale~~ equal to or less than −10°C.

Appendix LR1 – Requirements for Ships Using Methyl Alcohol (Methanol) or Ethyl Alcohol

LR A-1-03 Plans and information to be submitted

LR A-1-03a In addition to the plans and information required by the relevant Chapters of the *Rules and Regulations for the Classification of Ships* the following are to be submitted for assignment of the **LFPF(GF,ML)** notation and the **LFPF(GF,EL)** notation:
~~(u) A suitable testing and inspection plan for fuel storage and supply system trials.~~
(u) A suitable inspection and testing plan for fuel bunkering, storage and supply systems including trials and periodical surveys.

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Published by Lloyd’s Register Group Limited
Registered office (Reg. no. 08126909)
71 Fenchurch Street, London, EC3M 4BS
United Kingdom

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